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SHUFFLE MASTER, INC., and

MP GAMES LLC D/B/A MINDPLAY

ALLIANCE GAMING CORP. D/B/A BALLY GAMING AND SYSTEMS and

Defendants.

GAMES, ROBERT MOUCHOU,

and BALLY GAMING, INC.,

Plaintiffs,

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IGT,

v.

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UNITED STATES DISTRICT COURT DISTRICT OF NEVADA

3:04-CV-00407-ECR (RAM)

ORDER

Plaintiffs Shuffle Master, Inc., and International Game Technology ("IGT", collectively "Plaintiffs") originally sued Defendants MP Games, Robert Mouchou, Alliance Gaming Corp., and Bally Gaming Inc. (collectively "Defendants"), claiming that Defendants' MP21 game system infringed several patents held by Shuffle Master. (Complaint (#1).) Plaintiffs' First Amended Complaint (#42) alleges eleven causes of action, respectively for: (1) infringement of U.S. Patent 6,313,871 ('871); (2) infringement of U.S. Patent 5,781,647 ('647); (3) correction of the named inventor of U.S. Patent 6,517,436 ('436); (4) correction of the named inventor of U.S. Patent 6,520,857 ('857); (5) correction of the named inventor of U.S. Patent 6,527,271 ('271); (6) correction of the named inventor of U.S. Patent 6,530,836 ('836); (7) correction of the named inventor of U.S. Patent 6,712,696 ('696); (8) correction of the named inventor of U.S. Patent 6,579,180

('180); (9) correction of the named inventor of U.S. Patent 6,579,181 ('181); (10) misappropriation of trade secrets; and (11) a finding that this is an exceptional case pursuant to 35 U.S.C. § 285.

Defendants counter-claimed against Shuffle Master for infringement of several MindPlay patents by Shuffle Master's SmartTable game monitoring system and for misappropriation of trade secrets. The counterclaims alleged in their Answer (#45) to the amended complaint are respectively for: (1) a declaratory judgment that the '871 patent is invalid and not infringed; (2) a declaratory judgment that the '647 patent is invalid and not infringed; (3) misappropriation of trade secrets; (4) breach of contract; (5) infringement of the '436 patent; (6) infringement of the '857 patent; (7) infringement of the '836 patent; and (8) infringement of the 6,530,837 patent. In turn, Plaintiffs then counter-claimed, alleging that three patents owned by MindPlay ('436, '857, and '836) interfere with the '871 patent, and that these patents, as well as U.S. Patent No. '837 patent, are invalid in light of prior art. (P.s' Fourth Amended Reply to D.s' Counterclaims to First Amended Complaint for Patent Infringement and Affirmative Defenses and Counterclaims in Reply Thereto (#556).)

The Court dismissed (#207) without prejudice Defendants' breach of contract claim (count IV (#45)) on April 19, 2005. The parties then stipulated to the dismissal (#565) of the misappropriation of trade secrets claims on October 2, 2006.

The Court entered its Order (#322) construing the disputed

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claim terms in the '647 and '871 patents on December 20, 2005.

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- The dispositive motions currently pending before the Court are:
- 1. Defendants' Motion for Summary Judgment of Non-Infringement and Invalidity 5,781,647 (#580, #742);
- 2. Defendants' Motion for Summary Judgment of Non-Infringement and Invalidity of U.S. Patent No. 6,313,871 (#566, #743);
- Obefine Defendants' Motion for Summary Judgment of Invalidity of U.S. Patent No. 6,313,871 Due to Failure to Join Co-Inventor William Florschuetz (#575);
 - 4. Plaintiffs' Cross Motion for Summary Judgment (set forth in Plaintiffs' Opposition to Defendants' [Seventh] Motion for Summary Judgment of Invalidity of U.S. Patent No. 6,313,871 Due to Failure to Joint Co-Inventor William Florschuetz (#672);
- Defendants' Motion for Summary Judgment on Shuffle Master's Claim for Correction of Inventorship in Counts III through IX of the First Amended Complaint (#578).
- 13 6. Plaintiff Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of U.S. Patent Nos. 6,517,436 and 6,520,857 (#577); and
 - 7. Defendants' Motion for Summary Judgment of Plaintiffs' Counts I-III of Counterclaims for Interference (#572).

Each motion has been fully briefed, and following the Supreme Court's decision in <u>KSR Int'l Co. v. Teleflex Inc.</u>, 127 S.Ct. 1727 (2007), the Court allowed for additional briefing regarding the effects of <u>KSR</u> on the pending dispositive motions. (Order of June 14, 2007 (#817).) The Court heard oral argument on the pending motions on February 28 and 29, 2008.

Defendants have filed the following motions to strike and evidentiary objections:

1. Objection (#767) to the Declaration of Jared E. Hedman in Support of Plaintiffs' Motion for Summary Judgment of Invalidity of U.S. Patents 5,781,647 and 6,313,871;

- 2. Objection (#766) to the Declaration of Christopher M. Kaiser in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment of Invalidity of U.S. Patent No. 6, 313,871 Due to Failure to Join Co-Inventor William Florschuetz;
- 4 3. Objection (#765) to the Declaration of Michael P. Bregenzer in Support of Shuffle Master's Opposition to Defendants' Motions for Summary Judgment of Non-Infringement of U.S. Patent No. 6,313,871;
- 7 4. Objection (#764) to the Declaration of Christopher M. Kaiser in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment on Shuffle Master's Claim for Correction of Inventorship in Counts III through IX of the First Amended Complaint (#764);
- 5. Objection (#763) to the Declaration of Michael P. Bregenzer in Support of Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of the U.S. Patent Nos. 6,517,436 and 6,529,857 (#763);
- Objection (#761) to the Declaration of John Strisower in Support of Plaintiffs' Opposition to Defendants' Motions for Summary Judgment of Invalidity of U.S. Patent Nos. 5,781,647 and 6,313,871 (#761);
- 7. Objection (#760) to the Declaration of Jared E. Hedman In Support of Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of U.S. Patent Nos. 6,517,436 and 6,529,857;
- 8. Objection (#759) to the Declaration of Dr. Kenneth Castleman in Support of Plaintiffs' Opposition to Defendants' Motions for Summary Judgment of Non-Infringement of U.S. Patents Nos. 5,781,647 and 6,313,871;
- 9. Objection (#758) to the Declaration of Oliver Schubert in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment on Shuffle Master's Claim for Corrections of Inventorship in Counts III through IX of the First Amended Complaint;
- 24 10. Objection (#756) to the Declaration of James T. Carmichael in Support of Plaintiffs' Memoranda in Opposition to Defendants' Eighth Motion for Summary Judgment of Plaintiffs' Counts I-III of Counterclaims for Interference and Defendants' Ninth Motion for Summary Judgment on Shuffle Master's Claim for Correction of Inventorship in Counts III-IX of the First Amended Complaint (#756);

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- 11. Objection (#748) to the Declarations of Oliver Schubert and Willy Florschuetz in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment of Invalidity of U.S. Patent No. 6,313,871 for Failure to Join Co-Inventor Willy Florschuetz;
 - 12. Defendants' Motion (#824) to Strike the Supplemental Expert Report of James T. Carmichael and the Portions of the Supplemental Expert Report of John Strisower Addressing Plaintiffs' Interference Claim for Violation of the Court's June 14, 2007 Order.
- Plaintiffs have filed the following evidentiary objections and motions to strike:
- 13. Plaintiffs' Objections to Defendants' Summary Judgment Declarations (#802);
- 14. Plaintiffs' Motion to Strike [886] Errata (#891);
- 15. Plaintiffs' Motion for Leave to File Shuffle Masters Motion For Leave To File Responses To Defendants Supplemental Statements Of Undisputed Facts In Support Of Defendants Motions for Summary Judgment of Non-Infringement and (#885).

I. Evidentiary and Procedural Objections

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The Court's rulings on the evidentiary objections and motions to strike are as follows:

- 1. Plaintiffs' Motion to Strike [886] Errata (#891) and Plaintiffs' Motion for Leave to File Responses (#885) are **DENIED**. The Motion to Strike is meritless and the Motion for Leave to File Responses is effectively a motion for reconsideration that the Court will deny for the reasons already stated.
- 2. Defendants' Motion (#824) to Strike the Supplemental Expert Report of James T. Carmichael and the Portions of the Supplemental Expert Report of John Strisower Addressing Plaintiffs' Interference Claim for Violation of the Court's June 14, 2007 Order is **DENIED** as to Strisower but **GRANTED** as to Carmichael. The "evidence" submitted by Carmichael is improper and irrelevant in

this case.

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Although Carmichael was educated as both an attorney and an engineer, the opinions he offers are legal conclusions that stem from his experience working at the United States Patent and Trademark Office (PTO). Plaintiffs are entirely correct that Carmichael's legal opinions cannot properly be considered as factual evidence in this case. See, e.g., Endress + Hauser, Inc. v. Hawk Measurement Systems Pty. Ltd., 122 F.3d 1040, 1042 (Fed. Cir. 1997) ("this court has on numerous occasions noted the impropriety of patent lawyers testifying as expert witnesses and giving their opinion regarding the proper interpretation of a claim as a matter of law"); Aguilar v. International Longshoremen's Union Local No. 10, 966 F.2d 443, 447 (9th Cir. 1992) (striking expert testimony regarding legal issues of reasonableness and foreseeability is entirely appropriate); see also Becton Dickinson and Co. v. C.R. Bard, Inc., 922 F.2d 792, 797 (Fed. Cir. 1990) (witness's legal opinion is "not fact evidence," and thus is insufficient to create genuine issue of material fact). This Court disagrees with the reasoning stated in Talarico v. Marathon Shoe Compnay, 182 F.Supp.2d 102, 112-13 (D. Me. 2002), which essentially held that the relevance issue can be avoided to the extent that the attorney's expert opinion helps "articulate" the party's case. at 112-13; see also Reiffin v. Microsoft Corp., 270 F. Supp. 2d 1132, 1145 (N.D. Cal. 2003) (citing with approval Talarico and allowing patent attorney's explanation where an allegation of laches apparently made the reasonableness of the patent prosecution relevant). Sidestepping the relevance issue allows a party to retain and present the argument of outside counsel as expert

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factual evidence. This is impermissible both under Federal Rule of Evidence 702 and under the rules of professional conduct. <u>See</u> Nev. R. Prof. Conduct 3.7 (adopting model rule 3.7, which states with exceptions not relevant here that: "[a] lawyer shall not act as advocate at a trial in which the lawyer is likely to be a necessary witness"). Similarly, Carmichael's opinion regarding the likely subjective thoughts of the patent examiner in light of PTO procedures is irrelevant. Both the record and the PTO procedures speak for themselves. In sum, Carmichael's opinions cannot be considered in this case.

Accordingly, the objection (#756) to the Declaration of James T. Carmichael in Support of Plaintiffs' Memoranda in Opposition to Defendants' Eighth Motion for Summary Judgment of Plaintiffs' Counts I-III of Counterclaims for Interference and Defendants' Ninth Motion for Summary Judgment on Shuffle Master's Claim for Correction of Inventorship in Counts III-IX of the First Amended Complaint (#756) is **SUSTAINED**. Defendants' objection (#760) to the Declaration of Jared E. Hedman In Support of Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of U.S. Patent Nos. 6,517,436 and 6,529,857 is also **SUSTAINED** as to Carmichael's report.

It does not follow that demonstrative evidence, including Plaintiffs and Defendants' claim charts, would not be admissible at trial. See, e.g., Tritek Technologies, Inc. v. United States, 67 Fed. Cl. 727, 729 (2005) (demonstrative evidence used to explain or illustrate other evidence that is already in the record may be admissible). On this basis, Plaintiffs' objection (#572) to Defendants' claim charts is **OVERRULED**. Although Plaintiffs' claim

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charts (Exs. 7-14 to Carmichael Decl. (#683)) have been submitted to the Court on an improper basis, they will also be considered as demonstrative evidence.

3. Defendants raise numerous objections (##767, 766, 765, 764, 763, 760) to the authentication of Plaintiffs' exhibits. Ninth Circuit law is clear that a document cannot be authenticated merely by way of an attorney's declaration that states that the document is "true and correct." Beyone v. Coleman Sec. Services, Inc., 854 F.2d 1179, 1182 (9th Cir. 1988). Further, it is generally the case that "to be considered by the court, documents must be authenticated by and attached to an affidavit that meets the requirements of Rule 56(e) and the affiant must be a person through whom the exhibits could be admitted into evidence." Hal Roach Studios, Inc. v. Richard Feiner and Co., Inc., 896 F.2d 1542, 1550-51 (9th Cir. 1990) (emphasis supplied; internal quotations and brackets omitted); see generally Wright, Miller, & Kane, Federal Practice & Procedure: Civil 3d § 2722 (1998). On the other hand, documents that are produced in discovery by a party opponent are, at least in many if not most cases, considered authentic if there is some indication that the documents are what they say they are and there is no substantive challenge to their authenticity. See Maljack Productions, Inc. v. GoodTimes Home Video Corp., 81 F.3d 881, 889 n.12 (9th Cir. 1996) ("The district court did not err in considering the documents . . . [where (1) the appellant] produced the documents to [the appellee], [(2)] many of the documents were on . . . letterhead and [(3) the appellant] does not contest their authenticity.") (modifications supplied). Accord McQueeney v. <u>Wilmington Trust Co.</u>, 779 F.2d 916, 928-29 (3d Cir. 1985)

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(production of documents in discovery is circumstantial evidence of the documents' authenticity); <u>United States v. Brown</u>, 688 F.2d 1112, 1116 (7th Cir. 1982) (same). Here, no substantive doubt has been raised that any of the exhibits are authentic, and the circumstantial evidence in each case suggests that the documents are in fact authentic. Most of the documents contain insignias, logos, and letterheads, and the electronic mails appear to be internally authenticating. Having reviewed the evidence, and absent a more substantive challenge, the exhibits shall be considered authenticated. Accordingly, the objections (##767, 766, 765, 764, 763, 760) to the authentication of these documents are **OVERRULED**.

4. Both Plaintiffs and Defendants object to expert reports that have been submitted unsworn. (##765, 760, 802.) The Court notes that the substance of the experts' findings has for the most part been incorporated into sworn declarations, and it is hard to see how this issue as anything but a waste of the Court's time. Nevertheless, the purpose of allowing affidavits or declarations at summary judgment is to consider testimony that would be admissible at trial. To be admissible, the testimony must be sworn. See Fed. R. Civ. P. 56(e); Fed. R. Evid. 603. Indeed, papers referred to by the affiant must also be "sworn or certified." Fed. R. Evid. 56(e). It clearly follows, and is well established, that an unsworn expert report is inadmissible. See Wittmer v. Peters, 87 F.3d 916, 917 (7th Cir. 1996) (unsworn expert reports are not admissible under Rule 56(e) to support or oppose summary judgment); Fowle v. C & C Cola, 868 F.2d 59, 67 (3d Cir. 1989) (expert's report attached to the declaration of plaintiff's counsel does not

comply with Rule 56(e), since "[t]he substance of th[e] report was 2 not sworn to by the alleged expert"); Provident Life and Accident Ins. Co. v. Goel, 274 F.3d 984, 1000 (5th Cir. 2001) ("'Unsworn 3 expert reports . . . do not qualify as affidavits or otherwise 4 admissible evidence for [the] purpose of Rule 56, and may be 5 disregarded by the court when ruling on a motion for summary 6 judgment.'") (quoting 11 Moore's Federal Practice ¶ 56.41[2][c] (3d 7 ed. 1997)). See also EPIS, Inc. v. Fidelity and Guaranty Life Ins. 9 Co., 156 F.Supp.2d 1116, 1124 (N.D. Cal. 2001) (striking declarations for numerous reasons, including because they were 10 unsworn). Some courts have held parties opposing summary judgment 11 to a "less exacting" standard than parties seeking summary 12 judgment, so long as the requirements of Rule 56(e) - that is, 13 14 personal knowledge, competence, and admissibility - are met. See 15 Competitive Technologies, Inc. v. Fujitsu Ltd., 333 F.Supp.2d 858, 863 (N.D. Cal. 2004). Insofar as admissibility is actually 16 required by these courts, Federal Rule of Evidence 603 presents a 17 18 problem. Further, insofar as summary judgment is an important 19 component of the federal rules that is not disfavored, Celotex 20 Corp. v. Catrett, 477 U.S. 317, 327 (1986), we do not see the 21 purpose or the fairness in applying different, and somewhat fuzzy 22 rules of evidence to the parties at summary judgment. 23 objections (##765, 760, 802) to the unsworn reports are **SUSTAINED**.

5. Defendants' objections (#759, 761) to the declarations of

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¹It has generally been held that the problem may be remedied after it is identified. <u>See Maytag Corp. v. Electrolux Home Products, Inc.</u>, 448 F.Supp.2d 1034, 1046 (N.D. Iowa 2006) (collecting cases).

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John Strisower and Dr. Kenneth Castleman in light of the Court's claim construction are OVERRULED. Defendants have a point. See Phillips v. AWH Corp., 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) ("a court should discount any expert testimony 'that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.'"). Under the circumstances, however, and even to the extent that Defendants' arguments have some merit in each case, these arguments appear to go to weight rather than admissibility.

- 6. Plaintiffs' objection (#802) to the Declaration of Glenn Fishbine, dated October 3, 2006 (#571), is **SUSTAINED**. There may be some overlap in the areas that the Magistrate Judge designated as permissible and impermissible areas of testimony for Glenn Fishbine. However, should Defendants wish to rely on Fishbine's testimony in any further proceedings, they should move for clarification rather than submitting testimony that is very clearly at odds with an order (#518) of the Magistrate Judge.
- 7. Defendants' hearsay objection (#766) regarding Willy Florschuetz's statements as relayed by Oliver Schubert stating that Florschuetz stated "I wasn't really a part of that" and "No, I don't think I need to be named as an inventor" is SUSTAINED.
- 8. Defendants' hearsay objections (##760, 767) regarding Douglas Anderson's statements regarding Bryant Scheffe's role in the development of Trak-21 are **OVERRULED**.
- 9. Defendants' objection (#765) to the testimony of Dan Tylutki asserting lack of foundation is **OVERRULED**.
 - 10. The redacted versions of the translated emails between

Schubert and Florschuetz were before the PTO, and thus were readily available to Defendants. The actual substance of the translations has not been disputed. The apparent failure to initially produce the translations of the German emails between Schubert and Florschuetz and the apparent failure to produce information regarding the circumstances of their translation appears to the Court to have been substantially harmless, but the Court will consider a motion to recover any expenses incurred by Defendants in verifying the translations. Cf. Fed. R. Evid. 604. On this basis, Defendants' objection (#763) to the Declaration of Michael P. Bregenzer in Support of Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of the U.S. Patent Nos. 6,517,436 and 6,529,857 is OVERRULED.

11. The parties' respective objections (#760, 802) to the scope of the deposition questioning of their own expert witnesses are **OVERRULED**. The objections (##748, 758, 802) to the declarations of Huizinga, Soltys, Schubert, and Florschuetz are also **OVERRULED**.

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II. Summary Judgment Standard

Summary judgment allows courts to avoid unnecessary trials where no material factual dispute exists. Northwest Motorcycle Ass'n v. United States Dep't of Agric., 18 F.3d 1468, 1471 (9th Cir. 1994). The court must view the evidence and the inferences arising therefrom in the light most favorable to the nonmoving party, Bagdadi v. Nazar, 84 F.3d 1194, 1197 (9th Cir. 1996), and should award summary judgment where no genuine issues of material fact remain in dispute and the moving party is entitled to judgment

as a matter of law. Fed. R. Civ. P. 56(c). Judgment as a matter of law is appropriate where there is no legally sufficient evidentiary basis for a reasonable jury to find for the nonmoving party. Fed. R. Civ. P. 50(a). Where reasonable minds could differ on the material facts at issue, however, summary judgment should not be granted. Warren v. City of Carlsbad, 58 F.3d 439, 441 (9th Cir. 1995), cert. denied, 116 S.Ct. 1261 (1996).

The moving party bears the burden of informing the court of the basis for its motion, together with evidence demonstrating the absence of any genuine issue of material fact. Celotex Corp., 477 U.S. at 323. Once the moving party has met its burden, the party opposing the motion may not rest upon mere allegations or denials in the pleadings, but must set forth specific facts showing that there exists a genuine issue for trial. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). Although the parties may submit evidence in an inadmissible form - namely, depositions, admissions, interrogatory answers, and affidavits - only evidence which might be admissible at trial may be considered by a trial court in ruling on a motion for summary judgment. Fed. R. Civ. P. 56(c); Beyene v. Coleman Security Services, Inc., 854 F.2d 1179, 1181 (9th Cir. 1988).

In deciding whether to grant summary judgment, a court must take three necessary steps: (1) it must determine whether a fact is material; (2) it must determine whether there exists a genuine issue for the trier of fact, as determined by the documents submitted to the court; and (3) it must consider that evidence in light of the appropriate standard of proof. Anderson, 477 U.S. at 248. Summary Judgement is not proper if material factual issues

exist for trial. B.C. v. Plumas Unified Sch. Dist., 192 F.3d 1260, 1264 (9th Cir. 1999). "As to materiality, only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment." Anderson, 477 U.S. at 248. Disputes over irrelevant or unnecessary facts should not be considered. Id. Where there is a complete failure of proof on an essential element of the nonmoving party's case, all other facts become immaterial, and the moving party is entitled to judgment as a matter of law. Celotex, 477 U.S. at 323. Summary judgment is not a disfavored procedural shortcut, but rather an integral part of the federal rules as a whole. Id.

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The '647 patent discloses a "gambling chip recognition system," and in particular, "[a] computer implemented gambling chip recognition system having the ability to capture an image of a stack of gambling chips and automatically processing the image to determine the number of chips within the stack and the value of each." '647 Patent Abstract. The patent stems from an application filed in October 1995, and the PTO issued the '647 patent to Glenn Fishbine and Jack Klingert on July 14, 1998. Shuffle Master and IGT currently each own a 50% interest in the rights of the patent. The accused MP21 system, developed by Richard Soltys and Richard Huizinga, is owned and currently being marketed by Bally Technologies.

Defendants argue that the MP21 does not infringe the '647 patent, and that the patent is in any case invalid in light of prior art.

A. Patent Infringement

Any person who "without authority makes, uses, offers to sell, or sells any patented invention, within the United States . . . infringes the patent." 35 U.S.C. § 271(a). Infringement analysis involves two steps: first, the claim scope is determined; second, the properly construed claim is compared with the accused device to determine whether all of the claim limitations are present either literally or by a substantial equivalent. Amazon.com, Inc. v. Barnesandnoble.com, Inc., 239 F.3d 1343, 1351 (Fed. Cir. 2001).

Claims within a patent may be divided into independent and dependent claims. Independent claims are those which do not refer directly to other claims. Dependent claims, as their name suggests, "depend" on the referenced independent claim and place additional limitations onto that independent claim. If an accused product does not infringe an independent claim of the asserted patent, it cannot infringe any of the claims that depend on the independent claim. Jeneric/Pentron, Inc. v. Dillon Co., Inc., 205 F.3d 1377, 1383 (Fed. Cir. 2000).

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B. Literal Infringement

Because each claim is a separate statement of the patented invention, a patent is infringed if any one of its claims is infringed. Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1220 (Fed. Cir. 1995). A device is not saved from infringement by

adding elements beyond those claimed in a patent; if a claim reads on part of an accused device, then the entire accused device infringes on the claim. <u>Suntiger</u>, <u>Inc. v. Scientific Research Funding Group</u>, 189 F.3d 1327, 1336 (Fed. Cir. 1999). Conversely, if an accused device or process does not include each and every limitation of a patent claim, there is no literal infringement. <u>Spectrum Int'l</u>, <u>Inc. v. Sterlite Corp.</u>, 164 F.3d 1372, 1379 (Fed. Cir. 1998).

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C. The Doctrine of Equivalents

The doctrine of equivalents operates to ensure that "[m]ere colorable differences, or slight improvements, cannot shake the right of the original inventor." Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc., 62 F.3d 1512, 1517 (Fed. Cir. 1995) (internal citations omitted). The doctrine loosens the requirements of literal infringement, allowing a finding of infringement where one or more limitations of an asserted claim are not met literally, but are met by an equivalent embodiment. KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1359 (Fed. Cir. 2000).

The Federal Circuit has identified several tests for identifying when a claim limitation is met by an equivalent structure. One test is whether "the differences between the two are 'insubstantial' to one of ordinary skill in the art." KCJ, 223 F.3d 1359. Another test is whether the element in the accused device that does not literally infringe "performs substantially the same function in substantially the same way to obtain the same result." Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S.

605, 608 (1950). The determination of equivalence should be applied as an objective inquiry on an element-by-element basis.

Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S.

17, 40 (1997). Whether the accused device contains each claim element exactly or its equivalent is a question of fact. KCJ, 223 F.3d at 1353.

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D. Prosecution History Estoppel against the Invocation of the Doctrine of Equivalents

If a patentee disclaims subject matter during a patent's prosecution through a narrowing amendment, prosecution history estoppel prevents that patentee from using the doctrine of equivalents to reclaim the disclaimed subject matter. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. ("Festo VIII"), 535 U.S. 722, 740 (2002). The mere addition of a narrowing amendment does not prevent assertion of all equivalents to that limitation. Id. Instead, the narrowing amendment gives rise to a presumption of estoppel which the patentee may rebut by proving either (1) that the amendment was made for a purpose unrelated to patentability, id. (citing Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 520 U.S. 17, 33 (1997)), or (2) that the amendment did not surrender the exact equivalent in question. Festo VIII, 535 U.S. at 740-41. Rebuttal of the presumption of surrender is a question of law to be determined by the court. Festo Corp. v. Shoketsu Kinzoku Koqyo Kabushiki Co. ("Festo IX")), 344 F.3d 1359, 1367-68 (Fed. Cir. 2003). The patentee has the burden of showing that a narrowing amendment does not surrender a particular equivalent. See Festo VIII, 535 U.S. 740.

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E. Prosecution History Disclaimer and Specification Disclaimer

A patentee is "is not entitled to a claim construction divorced from the context of the written description and prosecution history." Nystrom v. TREX Co., 424 F.3d 1136, 1144-45 (Fed. Cir. 2005). "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." Phillips, 415 F.3d at 1317. The Court must therefore "examine the patent's prosecution history, when placed in evidence, to determine whether the inventor disclaimed a particular interpretation of a claim term during the prosecution of the patent in suit or during the prosecution of an ancestor application." Ventana Med. Sys., Inc. v. Biogenex Lab., <u>Inc.</u>, 473 F.3d 1173, 1182 (Fed. Cir. 2006); <u>see</u> also Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1349 (Fed. Cir. 2004). "The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." Southwall Techs. v. Cardinal IG Co., 54 F.3d 1570, 1576-77 (Fed. Cir. 1995).

Fundamentally, "[c]laims may not be construed one way in order to obtain their allowance and in a different way against accused infringers." Southwall Techs., 54 F.3d at 1576-77. However, a disclaimer of scope in the prosecution history must be clear and unambiguous. Omega Eng'g, Inc., v. Raytek Corp., 334 F.3d 1314, 1324 (Fed. Cir. 2003).

In addition, "the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor."

Phillips, 415 F.3d at 1316. In such a case, "the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as dispositive." Id. (emphasis supplied); see also SciMed, 242 F.3d at 1344 ("[T]he written description can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format."). Where the specification "makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question." SciMed, 242 F.3d at 1341.

Defendants argue that Plaintiffs' infringement theory is "an improper attempt to reclaim material disclaimed during the prosecution of the '647 patent." Arguably, this is an issue that should have been raised at the Markman hearing, although the closely related issue of "prosecution estoppel" is a doctrine that is specifically triggered by infringement analysis.² The parties

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²The term "prosecution disclaimer" is used where coverage of a particular subject matter is disclaimed in the prosecution of a patent. The disclaimer may be independent, or in conjunction with a disclaimer in the specification. See generally Scimed Life Systems, Inc., v. Advanced Cardiovascular Systems, Inc., 242 F.3d 1337 (Fed. Cir. 2001). The term "prosecution history estoppel" (alternatively, "argument based estoppel") is used for essentially the same phenomenon, where a party is estopped from claiming an alleged infringement by way of the doctrine of equivalents because (continued on next page)

have presented their evidence and arguments on the issue, and the Court perceives no procedural obstacle, and more importantly, no prejudice to Plaintiffs in considering Defendants' disclaimer arguments.

F. Infringement Analysis

Defendants argue that the MP21 system does not read onto the '647 patent because (1) it does not identify chip edges (as required by all claims); (2) the system does not use "pixel variance" (as required by claim 6 and its dependent claims); and (3) the system does not use an image converter, frame grabber, video camera or video image (as required by claims 2, 3, and 7). Defendants also argue that the method claims (claims 5 and 15) are not infringed, or at least they are not infringed by the design and sale of the MP21 system.

The '647 patent has three independent claims (claims 1, 5, and 6), and a total of 16 claims. All three independent claims disclose determining the number of chips in the stack "by identifying chip edges for each chip," '647 Patent 7:30-31, 7:51, or "by identifying the edges of each chip." Id. 8:1-2. The Court's claim construction Order adopted the following definitions by stipulation:

"chip edges": the transition between a chip and something that is not that chip

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of a disclaimer that was made in the prosecution of the patent in order to secure approval. The Federal Circuit has acknowledged that there is "a relation" between the theories and that the standard is very close to the same in either case. Omega Eng'g, Inc., 334 F.3d at 1325 n.1.

"edges of each chip and edges of each individual chip": a dividing line between a chip and something that is not a chip

(Order of Dec. 20, 2005 at 55 (#322-3).) The parties agree that the latter definition should be altered, and pursuant to the parties' agreement, the terms will share a common definition: "the transition between a chip and something that is not that chip."

Defendants argue that the MP21 system does not identify or detect chip edges, but instead detects "stripes" or "streaks" on the sides of the chips. They note that while the MP21 system uses graphical "edge detection," as that term is used in the parlance of the field of digital image processing, this edge detection is not directed towards "chip edges." Defendants note that the programming code found in the EdgeLocator code module actually looks for the color transitions that embody stripes. Defendants further rely on the "experimental evidence" submitted by Dr. Trevor Darrell. In Dr. Darrell's experiment, the system was able to identify the number of chips based on the two-dimensional images which have been included in Appendix A. While Dr. Darrell submits that it has been demonstrated that the system does not use chip edges, (Darrell Decl. (#569) $\P\P$ 78-84), the Court finds that the experiment demonstrates that (1) the system can identify the number of chips where most chip edges are either absent or substantially missing, and (2) that the chips themselves can be factored out of the operation of the system, such that "chips" can be counted when the chips are absent but the streaks are present. Defendants also submit Huizinga's declaration, demonstrating that the system is not capable of counting chips that do not have streaks. (Huizinga

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Plaintiffs vigorously dispute Dr. Darrell's interpretation of his own demonstration, but they do not dispute that the MP21 system operates as Dr. Darrell described it did - that is, that the MP21 correctly identified the number of chips based upon the representations in Appendix A. In response to Huizinga's declaration, Plaintiffs assert that the system could conceivably be re-programmed to count chips without streaks, which Defendants do not dispute. The Court notes that here and elsewhere the capabilities and operation of a different system are not at issue in this case. Citing Dr. Castleman's rebuttal testimony, Plaintiffs argue that Dr. Darrell's demonstration is not the "normal" usage of the system. The observation is irrelevant insofar as the demonstration is submitted as a demonstration of the system's mechanics and internal logic, not its operation under That said, Plaintiffs certainly make the normal circumstances. point that Defendants' demonstration really just demonstrates that, insofar as some streaks edges correspond with chip edges, not all chip edges are necessary for the system's operation.

Plaintiffs also rely on Dr. Castleman's analysis of the programming source code used to create the software utilized by MP21. Indeed, his analysis of the source code for the software is repeated numerous times with only slight variation in Plaintiffs' briefing. In summation, Dr. Castleman analyzes several programming code modules (ProcessCandidateEdges, GetCenter, GetRadius, and

³Although this declaration was filed with Defendants reply, Plaintiffs have had abundant opportunities to respond and have done so.

IdentifyChipCandidate) and generally concludes:

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No transition gets included in the sequence of transitions that are considered without first being compared to the left and right edges determined from the calculated center and radius. Further, the order in which the transitions are evaluated in denomination matching is determined by proximity to the calculated center. As such, the overall algorithm for determining the value of a chip is dependent on the calculated center and radius and thus on the left and right edges of the chip that have been located by the previous analysis.

(Castleman Decl. (#695) ¶ 219.) Defendants have objected (#759) to this opinion because they contend it was not disclosed in compliance with Federal Rule of Civil Procedure 26(a)(2)(B). Plaintiffs response is largely that the "additional opinions" grew out of the opinions that were originally disclosed. The failure to be more specific at the outset does not appear to have been totally inconsequential, since Defendants assert that two of the routines Castleman analyzes are actually not part of the public, production version of the MP21 system. A Nevertheless, it is appropriate for the Court to consider the issue of how the software works in this case, and Defendants do not dispute that ProcessCandidateEdges is a component of the production MP21 system. Dr. Castleman's opinion responds to Defendants' arguments, and is not unrelated to his original opinion.

Having very carefully considered Dr. Castleman's declaration, the Court finds that Plaintiffs cannot show literal infringement. First, examining streaks and stripes, some of which may "correspond" to chip edges, others of which will not, is simply not the same as examining the direct visual indicia of "chip edges." Second, while the system identifies some streak edges that

⁴In light of Section 271(a), Defendants' point is unclear.

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correspond to chip edges, Defendants have demonstrated that the system does not actually identify the edges of each chip.

This said, it does not matter whether Plaintiffs' infringement theory must sound in the doctrine of equivalents or not, because Defendants' argument that Plaintiffs are trying to recover matter that was previously disclaimed is clearly meritorious. The '647 patent's description of the prior art explained that prior systems had required chips to have their edges encoded:

One of the problems with the system disclosed in U.S. Pat. No. 4,814,589 is that the system requires the disc-like objects, such as gambling chips, coins, tokens, etc., have machine readable information encoded about the periphery thereof. Another system having similar problems is disclosed in U.S. Pat. No. 5,103,081 to Fisher. It describes a gambling chip with a circular bar code to indicate the chips denomination, authenticity and other information. The chip validating device rotates the chip in order to read the circular bar code. [¶]... There is a need for a system that can determine the value of gambling chips without encoding the periphery of each chip to enable system determination of its value.

'647 Patent 1:55-2:6. The specification thus indicates that "identifying" within the terms of the independent claims of the '647 patent does not mean identifying by way of marks on the sides of chips. See SciMed, 242 F.3d at 1341. The whole point of the '647 patent is to count and identify chips without utilizing identifying markings. To the extent that there are any lingering doubts, they are eliminated by the prosecution history.

The patentee had sought to patent: "performing the step of comparing each said chip representation against said plurality of predetermined chip representations to determine the value of each chip within the stacked pile." (Ex. 22, SM-MP 000956, Smith Decl. (vol. 2) (#582).) The original language clearly covered identifying chips utilizing identifying markings. In order to

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overcome rejection due to obviousness the patentee made several arguments, including that: "[t]his method of determining the number of chips in a stack of chips . . . does not require use of any identifying markings . . ." (Ex. 22, SM-MP 000960, Smith Decl. (vol. 2) (#582).) The patentee also argued that prior art was distinguishable because binary codes were not encoded on chips and because prior systems did not process an image of an entire stack of chips. (Id. at SM-MP 000960 - SM-MP 000961.) Plaintiffs argue that the surrender of claim scope only applies to systems that utilize bar codes, not to any system that utilizes "identifying markings" on the sides of the casino chips. Adopting Plaintiffs' theory would require the Court to simply ignore the patentee's multiple arguments to the examiner. The previous claim language was extraordinarily broad and obviously covered systems utilizing "identifying markings," with or without chip edges, and Plaintiff's argument to the examiner does not leave any ambiguity regarding whether the '647 patent claims systems utilizing "identifying markings." There is nothing here to rebut the presumption that the patentee has surrendered all territory between the original claim limitation and the amended claim limitation, and the patentee's statement was, in any case, a clear disclaimer.

In sum, whether viewed through the lens of specification disclaimer, prosecution disclaimer, or prosecution history estoppel, the MP21 system does not infringe the '647 patent. As this issue is dispositive, it is not necessary to address Defendants' other arguments regarding non-infringment. The Court will nevertheless briefly observe that (1) "pixel variance" (claim 6) clearly means statistical variance within the context of the

specification and the prosecution history, 5 and (2) the issues concerning "video" technology — that is, the image converter, frame grabber, video camera, and video image requirements (claims 2, 3, and 7) — track the same infringement issues in the '871 patent.

The significant difference is that Plaintiffs have not argued that the doctrine of equivalents would apply with respect to this patent.

G. Invalidity

Patent claims are presumed to be valid, 35 U.S.C. § 282, and the party seeking to show invalidity must prove facts supporting invalidity by clear and convincing evidence. N. American Vaccine, Inc. v. American Cyanamid Co., 7 F.3d 1571, 1579 (Fed. Cir. 1993).

H. Anticipation Standard

Anticipation under 35 U.S.C. § 102 is a question of fact.

Merck & Co., Inc. v. Teva Pharms. USA, Inc., 347 F.3d 1367, 1369

(Fed. Cir. 2003). "That which infringes if later, anticipates if earlier." SmithKline Beecham Corp. v. Apotex Corp., 439 F.3d 1312

(Fed. Cir. 2006). "A patent is invalid for anticipation if a single prior art reference discloses each and every limitation of

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⁵The patentee stated, for example: "[t]he variance values illustrate the point in the cross-section where the variance grows large enough to indicate a statistical edge value," and "[t]he number of statistical edges the processor detects helps the computer determine the number of gambling chips in a stack." (Ex. 22, SM-MP 000960-61, Smith Decl. (vol. 2) (#582).) In addition, the specification provides the equation for statistical variance as the "variance equation." '647 Patent 4:55-65. This issue is not close.

the claimed invention." <u>Schering Corp. v. Geneva Pharmaceuticals</u>, 339 F.3d 1373, 1377 (Fed. Cir. 2003). "[A] prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference." Id.

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I. Anticipation Analysis

Defendants argue that the '647 patent, at least as interpreted by Plaintiffs, is anticipated by U.S. Patent 4,531,187 ('187). They assert that, because Plaintiffs infringement theory eliminates the chip edges requirement from the '647 patent, it need not be found in prior art for the purposes of anticipation. Plaintiffs, on the other hand, argue that the '187 patent lacks "imaging a stacked pile of chips, storing chip representations, determining the number of chips in a stacked pile by identifying chip edges, calculating chip representations, computing pixel variance values, and applying an edge detection filter." (P.s' Corrected Memo. in Opp. to Def.s' Fourth Mot. for Summ. J. (#722) 8.)

The '187 patent discloses "a single video camera in the ceiling of the room," '187 Patent 3:48, and the crucial additional disclosure in that patent's specification appears to the Court to be the following:

The mechanical and electrical units which identify the cards and chips are effectively modifications of presently available scanners. For example, scanners now used in optical character recognition apparatus for inputting of typewritten material to a word processor or other computing equipment are available,

⁶The Court finds this argument unpersuasive, and perhaps it is even rhetorical. However, the Court will address Defendants' reliance on the '187 patent.

which application is far more demanding than chip and card recognition. Typically, a video camera supplies the composite video signal to a video amplifier, synchronization pulse separator and color separation unit 40. This outputs the separate red, green and blue video signals to recognition and shift registers 42, 43, 44. These are used by chip recognition unit 46 and card recognition unit 48 to identify the cards dealt and the chips bet. . . . Chip recognition is done typically on the basis of the color of the chip, in accordance with the usual practice according to which chips of different colors represent different bet amounts.

'187 Patent 4:3-33.

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The parties have very different interpretations of this patent and of this disclosure. Plaintiffs assert that the '187 patent only uses chip color to identify chips (although the patent implicitly counts chips as well) 7, whereas Defendants assert that the patent inherently discloses edge detection image processing techniques in stating that known optical character recognition techniques could be utilized to identify both cards and chips. (Darrell Decl. (#569) \P 123.) As Defendants note, it is uncontroversial that optical character recognition techniques involve edge detection. Defendants assert that the patent inherently covers imaging stacked chips on a table because that is the normal operation of casino tables. Plaintiffs argue that the '187 does not disclose the application of optical character recognition techniques to the casino monitoring context, and apparently that the mention of optical character recognition technology was more or less random. In light of the comparison of the computing resources required for optical character recognition

⁷For example, the '187 patent claims "means for determining the bets of each player." '187 Patent 6:4. There is no overt indication that the system would require players not to stack their chips in order to identify the chips in play, which is, of course, ordinary game play.

to those required for chip recognition, this is a dubious but not utterly implausible reading of the '187 patent. More fundamentally, the perhaps forward looking '187 patent, applied for in 1982 and issued in 1985, is not terribly clear in its disclosure. The '187 mentions color in describing the nature of video technology, and states that color will be used to identify chips. To the extent that any image processing technique uses digital values for pixel color, the patent's scope is arguably very broad. But, also arguably, the '187 patent does not disclose a means of counting chips even as such a means would appear to be implicit in the patent's claims. See `187 Patent 6:4 & 6:10-13 (claiming "means for determining the bets placed by each player" and "means for determining whether each player's bet has either been correctly paid out or collected from him"). To the extent such a disclosure is made, it certainly does not explicitly disclose counting chips by means of utilizing the chip edges, nor does it disclose storing chip representations. Thus, the inherent disclosures in the '187 patent are disputed questions of fact.

In sum, while the '187 patent is certainly suggestive, summary judgment is not warranted based on anticipation of the '647 patent by the '187 patent.

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J. Obviousness Standard

A patent may be invalidated as obvious "if the difference between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C.

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§ 103(a). Obviousness is a question of law. See Richardson-Vicks, Inc. v. Upjohn Co., 122 F.3d 1476, 1479 (Fed. Cir. 1997); see also Quad Environmental Technologies Corp. v. Union Sanitary Dist., 946 F.2d 870, 876 (Fed. Cir. 1991) ("The courts are the final arbiter of patent validity and, although courts may take cognizance of, and benefit from, the proceedings before the patent examiner, the question is ultimately for the courts to decide, without deference to the rulings of the patent examiner."). The legal conclusion as to obviousness is, of course, based on underlying factual determinations, including: "(1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) the extent of any proffered objective indicia of nonobviousness, sometimes termed secondary considerations, such as commercial success, long felt but unresolved needs, and failures of others." Dystar Textilfarben GmbH v. C.H. Patrick Co., 464 F.3d 1356, 1360 (Fed. Cir. 2006) (citing <u>Graham v. Joh</u>n Deere Co., 383 U.S. 1, 17-18 (1966)). Obviousness is evaluated on a "claim by claim" basis. Dystar, 464 F.3d at 1372. The Supreme Court has recently observed that "[g]ranting patent protection to advances that would occur in the ordinary

patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility." KSR International Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007); see also John F. Duffy, Inventing Invention: A Case Study of Legal Innovation, 86 Tex. L. Rev. 1, 12 (2007) ("The most important function of the nonobviousness doctrine is to prevent individuals from patenting

obvious, yet economically significant, responses to new conditions or 'exogenous' developments - i.e., developments achieved through some cause not attributable to the patent applicant's efforts. There is no good substitute for the nonobviousness doctrine in these circumstances."). "[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." KSR, 127 S.Ct. at 1741. However, "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." Id. at 1737. "If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." Id. at 1740 (emphasis supplied). Further, KSR teaches that "a person of ordinary skill is also a person of ordinary creativity, not an automaton." Id. at 1742. A combination of elements may therefore be found obvious if that combination was "obvious to try." 8 Id. "[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person's skill." Id. at 1740.

The Court noted that:

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[a] Ithough common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have

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Sense of KSR and Other Recent Patent Cases, 106 Mich. L. Rev. First

IMPRESSIONS 39, 41 (2007), available at

http://www.michiganlawreview.org/firstimpressions/vol106/wegner.pdf

prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.

Id. at 1741. "[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006); see also KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007) ("To facilitate review, this analysis should be made explicit.") (citing Kahn, 441 F.3d at 988). A court should be wary of reasoning based on hindsight. See Graham, 383 U.S. at 36.

Nothing in <u>KSR</u> alters the statutory burden placed on the challenger of a patent: The patent challenger must make a factual showing of obviousness by clear and convincing evidence.

<u>PharmaStem Therapeutics, Inc. v. ViaCell, Inc.</u>, 491 F.3d 1342, 1360 (Fed. Cir. 2007). At the same time, the Supreme Court emphasized in <u>KSR</u> that: "[t]he ultimate judgment of obviousness is a legal determination," 127 S.Ct. at 1745, and a conclusory expert affidavit therefore should not prevent summary judgment. <u>Id.</u>

"Once a prima facie case of obviousness has been established, the burden shifts to the applicant to come forward with evidence of nonobviousness to overcome the prima facie case." In re Huang, 100 F.3d 135, 139 (Fed. Cir. 1996). The Federal Circuit has recently sought to clarify that under Federal Circuit law the burden on a challenger to a patent never changes even when the burden of production is shifted to the other party after the challenger puts forward a prima facie case of invalidity. Pfizer, Inc. v. Apotex, Inc., 480 F.3d 1348, 1359 (Fed. Cir. 2007) (quotations and citations omitted).

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The "TSM" Test

Plaintiffs argue that this Court should apply the so-called TSM ("teaching, suggestion, motivation") test, and that <u>KSR</u> does not amount to a change, or at least a substantial change in the law. They assert that all of Defendants' arguments amount to improper reasoning grounded in hindsight.

Although the Supreme Court noted in <u>KSR</u> that the Court of Customs and Patent Appeals had captured a "helpful insight" in adopting this test, <u>id.</u> at 1741, we do not agree with Plaintiffs' contention that the Supreme Court effectively endorsed the TSM test. Nor do we find the exact status of the test as a general matter to be of particular importance in this case. However, because parts of this case turn on the correct interpretation of <u>KSR</u>, we elaborate further on our understanding of <u>KSR</u> in this area.

Prior to <u>KSR</u>, it was "well-established that before a conclusion of obviousness may be made based on a combination of references, there must have been a reason, suggestion, or motivation to lead an inventor to combine those references."

<u>Pro-Mold and Tool Co., Inc. v. Great Lakes Plastics, Inc.</u>, 75 F.3d 1568, 1573 (Fed. Cir. 1996). Although at oral argument in <u>KSR</u> justices of the Supreme Court strikingly called the "teaching, suggestion, and motivation" test "irrational," "gobbledygook," and "meaningless," (Justice Scalia), as well as "jargon" that is "worse

⁹See Duffy, <u>Inventing Invention</u>, <u>supra</u>, at 64-65 ("If the problem of hindsight were the only consideration relevant when applying obviousness, the best solution would be to abolish the doctrine entirely. All obviousness inquiries suffer from the

possibility of hindsight bias because they are inherently retrospective.")

than meaningless" (Chief Justice Roberts), 10 the ultimate, unanimous decision in <u>KSR</u> suggested that the TSM test might be salvageable if the test was applied flexibly. 127 S.Ct. at 1743. The Court neither endorsed nor rejected the test, at least to the extent that it is applied flexibly and with appropriate deference to common sense. 11

With this in mind, a summary of the errors the Supreme Court found in the Federal Circuit's application of the TSM test in <u>KSR</u> is instructive for this Court:

- 1. Very simply, the Federal Circuit had applied an overly rigid test. The rigidity had allowed an obvious patent to escape invalidation, which stifled rather than promoted progress. In applying a rigid test, "The Court of Appeals . . . drew the wrong conclusion from the risk of courts and patent examiners falling prey to hindsight bias." Id. at 1742.
- 2. Partly as a result of the rigid application of the test, the Federal Circuit had wrongly assumed the person of ordinary skill in the art would only consider prior

¹⁰ See Hr'g Tr., KSR International Co. v. Teleflex, Inc., 04-1350, at 40-41, Nov. 28, 2006; Stephen G. Kunin & Andrew Beverina, Commentary, KSR's Effect on Patent Law, 106 Mich. L. Rev. First Impressions 50, 51-52 (2007) ("Kunin and Beverina"), available at http://www.michiganlawreview.org/firstimpressions/vol106/kuninbeverina.pdf.

¹¹Notably, the Court stated that "it <u>can</u> be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." <u>KSR</u>, 127 S.Ct. at 1741 (emphasis supplied). The implication is that there are, or at least might be cases where an invention is so obvious that it is not even necessary to delve into reasons to combine the prior art.

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art designed to solve the same problem. KSR, 127 S.Ct. at 1740. Put another way, the person of ordinary skill had improperly been rendered an "automaton." Id. at 1742. The Supreme Court held that: "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." Id. at 1741. We note that Defendants are correct that Plaintiffs have studiously ignored this aspect of KSR.

- 3. Relatedly, the Federal Circuit had erroneously held that a claim to a purportedly novel combination cannot be obvious because it was "obvious to try," <u>id.</u> at 1742, and as a result, factfinders had been denied access to common sense. <u>Id.</u>
- 4. The Federal Circuit had wrongly found that a conclusory expert affidavit was sufficient to overcome summary judgment. <u>Id.</u> at 1745-46.

Following KSR, the Federal Circuit has been sensitive to the varying levels of relevance the TSM test has in different contexts. In Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd., 492 F.3d 1350 (Fed. Cir. 2007), the circuit broadly held that a flexible version of the TSM test must be applied "in cases involving new chemical compounds." Id. at 1357. However, in other contexts, the Federal Circuit has not explicitly applied the test, and has emphasized that "[a]n obviousness determination [in the case of a combination of prior art] is not the result of a rigid formula disassociated from the consideration of the facts of a

case." Leapfrog Enters., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1161 (Fed. Cir. 2007) (modification supplied); see also id. at 1161 ("Accommodating a prior art . . . device . . . to modern electronics would have been reasonably obvious to one of ordinary skill in [the art]" because "[a]pplying modern electronics to older . . . devices has been commonplace in recent years."); In re

Comiskey, 499 F.3d 1365, 1380 (Fed. Cir. 2007) ("The routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness.").

All this said, even before KSR the Federal Circuit had held that in some circumstances the "suggestion" to combine innovations "may . . . come from the nature of a problem to be solved. . . ."

Pro-Mold and Tool Co., 75 F.3d at 1573; see also Alza Corp. v.

Mylan Labs., Inc., 464 F.3d 1286, 1291 (2006).

K. Obviousness Analysis

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1. Scope and Content of the Prior Art

As Defendants note and as Plaintiffs' expert on invalidity readily concedes, imagers, data storage, image processing, frame grabbers, and image converters all existed in the prior art. They are all used in the '647 patent's disclosure in a facially predictable manner. Neither the hardware nor the software to implement the invention was unknown. The patent itself actually mentions that the edge detection algorithm was "conventional." '647 Patent 6:20-21. In sum, the '647 patent is in substantial part the type of patent that triggers the concerns raised in KSR. Plaintiffs, however, argue that the invention was not obvious because the prior art did not disclose imaging a stacked pile of

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chips, using generated predetermined chip representations, and edge detection of a stack of chips.

Although prior art appears to have disclosed counting stacked chips, the record does not indicate that prior art specifically disclosed imaging a stack of chips on a table from the side. The most significant patented prior art that Defendants cite is clearly the '187 patent, which states that it adopts "scanners now used in optical character recognition apparatus" to identify chips, and thus, again, arguably utilizes edge detection techniques to identify chips. Again, the embodiment described in that patent is vague. The '647 patent also cites as prior art the '392 patent (Merton), which identifies coins by the marks on their sides and compares observations to stored representations (which it terms "fingerprinting"). 12

Plaintiffs object to the scope of the prior art that Defendants have cited, and at oral argument Plaintiffs argued that KSR is distinguishable because the holding of that case should be limited to cases where the combination is "specific," or of "two known devices." See KSR, 127 S.Ct. at 1741. The argument verges on bizarre. As a point of reference, Defendants properly recite and emphasize the facts of KSR. There, the patent at issue disclosed "a position-adjustable pedal assembly with an electronic pedal position sensor attached to the support member of the pedal assembly. Attaching the sensor to the support member allows the sensor to remain in a fixed position while the driver adjusts the

 $^{^{12}}$ See also U.S. Patent No. 5,494,147 (describing "a coin discriminating apparatus for discriminating coins by optically detecting coin surface patterns.").

pedal." 127 S.Ct. at 1737 (quoting the district court). The prior art included at least six patents that the Supreme Court considered: U.S. Patent 5,010,782, a structure for housing an adjustable mechanical brake pedal that had a fixed pivot point; U.S. Patent 5,460,061, a sliding brake mechanism that allowed both the pedal and the pivot point to be adjusted; U.S. Patent 5,241,936, a pedal with an electronic sensor on a pivot point in the pedal assembly; U.S. Patent 5,063,811, a sensor on a fixed part of the pedal assembly rather than on the pedal's footpad; U.S. Patent 5,819,593, an adjustable pedal assembly with an electronic sensor for detecting the pedal's position; U.S. Patent 5,385,068, a modular sensor, designed independently, that can be taken off the shelf and attached to mechanical pedals of various sorts. See 127 S.Ct. at 1735-36. The Supreme Court held that the prior art fit together like "pieces of a puzzle," <u>id.</u> at 1742, and it is quite clear that the Court saw no significance in the number or pieces. Indeed, an abundance of relevant prior art does not itself detract from the likelihood that an innovation is obvious.

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2. Differences Between the Prior Art and the Claims at Issue

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The '647 patent discusses the Storch and Fisher patents, noting that a key difference between the '647 patent and the prior art is that the disclosure in the '647 patent utilizes neither identifying markings nor a reading device in which the chips would be housed. '647 Patent 1:47-65. To some extent, Defendants' citation to these patents arises out of Plaintiffs' attempt to recapture what was previously disclaimed. However, the Storch and

Fisher patents are different from the '647 patent in the manner that is discussed by the '647 patent's specification.

Plaintiffs argue that the prior art cited by Defendants does not identify chip edges of stacked chips and the utilization of predetermined chip representations. Again, this appears to be debatable with respect to the '187 patent. If one considers machine vision techniques with respect to disc-like objects, however, it is indisputable that edge detection had been used to identify like objects, and further, that predetermined representations had been used as a computational strategy.

What we are left with are really two questions: (1) what exactly does the '187 disclose, and (2) whether the specific application of these techniques was obvious in this context.

Unlike KSR, the '647 patent involves the importation of "conventional" image processing techniques from one field, image processing, into another field, casino surveillance. Thus, the level of ordinary skill in the art is the most significant factor to be considered in evaluating whether this patent is obvious. See 127 S.Ct. at 1740 ("[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person's skill.") (emphasis supplied).

 $^{^{13}{}m This}$ must be the operating assumption for the purposes of summary judgment, but this Court has some doubts. Many of the inventors in this case do not exclusively work on casino systems.

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3. Level of Ordinary Skill in the Art

Plaintiffs expert on invalidity, John Strisower, agrees with Defendants' expert, Dr. Trevor Darrell, that a highlight of the ordinary skill in the art was a knowledge of computing and image processing techniques rather than a mere knowledge of gaming or, for example, the geometry of blackjack tables. (Strisower Depo. 27-28, Ex. 41 to Smith Decl. (#582).) Defendants assert that Plaintiffs are incorrect in requiring a background in player tracking systems, but note that this Plaintiffs' position actually helps Defendants' case, as the more skill that is present in the art, the more likely it is that the purported innovation would be obvious. Conversely, Strisower disagrees with Dr. Darrell insofar as Dr. Darrell concludes that one with ordinary skill in the art would have had two years of computer vision or image processing experience. As Defendants point out, the basis for this disagreement illustrates the nature of the patent: Strisower claims that in depth image processing experience and knowledge was simply unnecessary because the inventor would only have needed to utilize already developed image processing systems and techniques.

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4. Licensing by Others

(Strisower Depo. 142-43, Ex. D to Pallios Decl. (#873).)

Licensing by others is a secondary consideration that may be considered in establishing whether a patent is obvious. Defendant MindPlay attempted to purchase the Trak-21 system, including all existing hardware and Trak-21 systems, contracts and assignments, and intellectual property (copyrights, trademarks, and patents)

related to the Trak-21 system for \$150,000 in September 2002. (Ex. 17 to Pallios Decl. (#691).) Strictly speaking, Plaintiffs' assertion that MindPlay attempted to obtain a license is inaccurate, but the attempt to purchase the system could conceivably be indicative of nonobviousness. In addition, Shuffle Master and IGT have both acquired 50% interests in the patent.

Taken on their own, these fact prove very little because there is no evidence in the record as to why Shuffle Master and IGT bought their interests and why Mindplay sought to purchase the Trak-21 system. See In re Huang, 100 F.3d at 140 (due to the requirement of a "nexus," "success is relevant in the obviousness context only if there is proof that the sales were a direct result of the unique characteristics of the claimed invention — as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.").

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5. Long-Felt but Unmet Need

The existence of long-felt but unmet need to solve a particular problem can also be relevant to obviousness. The parties are in agreement that, in general, there was a long-felt need for improvements in automated casino monitoring systems. Plaintiffs have not addressed, however, Defendants' contention that Trak-21, the commercial embodiment of the '647 patent, was not a commercial success. It undisputed that not a single Trak-21 system ever sold. (Misslin Depo., Ex. S to Darrell Decl. (#870).)

The evidence of long-felt need can cut two ways: On the one hand, long-felt need might be considered evidence of non-obviousness, but on the other hand, to the extent that other

factors support obviousness, the existence of "market pressure to solve a problem" can support a finding of obviousness where there are a finite number of possible solutions. KSR, 127 S.Ct. at 1742. As Defendants argue, there was clearly a motivation to try the limited possibilities for utilizing image processing to track chips.

While we are mindful that inferences must benefit the non-moving party, there were very clearly finite solutions towards analyzing the problem, and there is no evidence that the '647 patent directly met the long-felt needs of the gaming industry. The Court concludes that the long-felt need for casino surveillance is not indicative of non-obviousness.

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6. Alleged Copying

Plaintiffs make the allegation that Defendants copied the '647 patent in creating their own system. There is no evidence to support this claim, and the claim is controverted by the developers of the MP21 system. The Federal Circuit has held:

Not every competing product that arguably [falls] within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent. Rather, copying requires the replication of a specific product.

Iron Grip Barbell Co., Inc. v. USA Sports, Inc., 392 F.3d 1317, 1325 (Fed. Cir. 2004) (modified to correct typographical error). A bare allegation of infringement of a patent is not sufficient to overcome summary judgment on invalidity.

7. Summary

Identifying the edges of chips stacked on a table is clearly

one of a finite number of possibilities for identifying chips on a table through image processing, KSR, 127 S.Ct. at 1742, and the patent itself explicitly states that the image processing techniques applied were "conventional" at the time. '647 patent 6:21. Further, Strisower's testimony indicates that the solution disclosed by the '647 patent was within the technical grasp of the person of ordinary skill in the art. Defendants argue that Plaintiffs, like the patentee in KSR, "have taken the invention of someone else - image processing techniques - and deprived skilled persons from using those techniques in the casino context." (Def.s' Supp. Points and Authorities re the Effect of KSR on the Parties' Pending Summ. J. Mot.s (#869) 21.) The Court agrees. While Plaintiffs are correct that image processing is not necessarily the only solution to the problem that Fishbine approached, this does not support the conclusion that Fishbine's utilization of image processing was not obvious in light of the skill in the art. <u>Id.</u> at 1740. A development in the area of jet planes is not non-obvious merely because prop planes exist.

Because it is undisputed that one with ordinary skill in the art would have a knowledge of image processing, the issue of whether Defendants are entitled to summary judgment is quite close. However, Defendants put substantial reliance on the '187 patent both for the purposes of anticipation and for obviousness. The scope of that patent and its disclosure is disputed, and we have noted that the patent is also at least arguably vague with respect

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to the means apparently utilized to count chips. 14 Ultimately, the Court finds that summary judgment cannot be afforded to Defendants in their claim that the '647 patent is obvious because there is a material dispute about the nature and scope of the disclosures in the most relevant prior art.

II. Defendants' Motion for Summary Judgment of Non-Infringement and Invalidity of U.S. Patent No. 6,313,871 (#566, corrected #743)

Oliver Schubert filed his patent application on February 19, 1999, and the PTO issued U.S. Patent No. 6,313,871 ('871) on November 6, 2001. Unlike the '647 patent, the '871 patent does not describe any particular method of image processing. Instead, the patent deals with the physical layout of a video monitoring system with respect to a gaming table, and the collection of video information related to the game. The patent has a total of seventy-one claims, with four independent claims (claims 1, 19, 39, and 43). Claim 1 generally discloses a gaming table, a "volume of space" extending from the upper or lower surface of the table, and a video camera with a line of sight less than about 45 degrees from the upper surface. Claims 19 and 43 disclose a sensor for activating and deactivating a video camera that collects video information related to the game. Claim 39 discloses a frame

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 $^{^{14}}$ Establishing the scope of the '187 patent is at least akin to claim construction, but at oral argument both parties submitted that determining the inherent disclosures in that patent was a question of fact. So too is the determination of whether the '187 actually enables what it claims, which in turn affects the extent to which it is relevant for the purposes of obviousness. Cf. 35 U.S.C. § 112, ¶ 1; Sitrick v. Dreamworks, No. 2007-1174, 2008 U.S. App. LEXIS 2251 (Fed. Cir. Feb. 1, 2008, revised Feb. 5, 2008).

coupled to the gaming table, which is capable of housing video cameras under a supported chip tray.

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Defendants argue that the MP21 does not infringe the '871 patent. Alternatively, Defendants argue that the '871 patent is invalid. The parties have briefed at length the issues of whether the MP21 system infringes: (1) the "video camera" and "video information" limitations (all claims); (2) the "sensors sensing predetermined events" limitations (claims 19 and 43, independent claim 44); (3) the "frame" limitations (claim 39); (4) the "imagers in the volume of space" limitation (claim 1); and (5) the focal point "on" the lens limitation (claim 1); and (6) the methods claims (claims 43, 44, and 45).

For the reasons set out below, Defendants' invalidity argument is dispositive, and it is not necessary for the Court to address the parties' infringement arguments. However, the Court has carefully considered all of the parties' numerous arguments, and will briefly note that Defendants would be entitled to partial summary judgment of non-infringement to the extent that the MP21 system utilizes a frame rate of 1 frame per 1.1 seconds. Further, Plaintiffs have failed to meet their burden of production of showing that the system, as currently implemented, utilizes a higher frame rate; indeed, Plaintiffs' counsel has been inconsistent on this issue. The frame rate is rather obviously not peripheral to the nature of video as a technology, and nothing in the Court's claim construction order would permit a technology that utilizes a series of individually identifiable, non-moving images at best, analogous to recording a slide show that is apparently never played as such - to be construed as falling within the "video camera" and "video information" limitations of the '871 patent. The relevant frame rate is the rate implemented, not the frame rate that could be implemented in a different system. Plaintiffs' best argument sounds in the doctrine of equivalents, but the Court agrees with Defendants that the all elements rule, DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, Inc. v. Medtronic Sofamor Danek, <a href="Inc. v. Medtronic Sofamor Danek, <a href="Inc. v. Medtronic Sofamor Danek, <a href="Inc. v. Medtron

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A. Anticipation

Defendants argue that '871 patent is anticipated by both by the '647 patent and by its embodiment, the Trak-21 system. Defendants assert that the '647 patent discloses "use of video cameras to image chips on a gaming table," which it does. Defendants also assert that the '647 patent discloses a side view of a stack of chips, which it clearly does. Figure 2 from the '647 patent is shown in Appendix B. Defendants claim that placing cameras in the "volume of space" within the perimeter of the table is inherently disclosed by the angle of the camera, since the lineof-sight would otherwise be obstructed. Discerning the precise angle of the camera, which is referenced in the '871 patent, is not possible. Cf. Hockerson-Halberstadt, Inc. v. Avia Group Intern., Inc., 222 F.3d 951, 956 (Fed. Cir. 2000) (as a matter of claim construction, "patent drawings do not define the precise proportions of the elements"). In any case, nowhere is there any discussion or suggestion in the '647 patent of the perils of remote placement. Defendants' arguments are well taken in the context of obviousness, but there are genuine issues of material fact with respect to Defendants' arguments based on anticipation.

Defendants also argue that the first generation of Trak-21, developed by Digital Biometrics, anticipated claims 19 and 43 of the '871 patent. Claims 19 and 43 require video cameras in "proximity" to the gaming table. Plaintiffs point out that the cameras in that system were not in the "volume of space" of the gaming table as that term is defined by claim 1. Defendants do not appear to be arguing that they were. Plaintiffs also assert that there is no evidence that the first generation of Trak-21 had sensors that sensed activities on the gaming table and activated video cameras. (Anderson PTO Decl. ¶¶ 4-8, Ex. 4 to Hedman Decl. $(#691).)^{15}$

In sum, there are genuine issues of material fact as to whether Trak-21 anticipated the '871 patent.

Obviousness В.

Defendants also argue that the '871 patent is obvious in light of prior art. The parties appear to agree that the ordinary skill in the art would be the same with this patent as it was with the '647 patent.

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 $^{^{15}}$ Defendants argue that the concession that the Trak-21 foot switch is not a sensor is a concession that the touch screen in the MP21 system is not a sensor. However, in any case, Plaintiffs have abandoned the argument that the MP21 touch screen is a sensor.

1. Scope and Nature of the Prior Art

There is no reasonable dispute that all of the individual elements of the '871 patent were known in the prior art. 16 As the '187 and '647 patents demonstrate, video cameras were used for table monitoring. As the '647 patent demonstrates, the use of cameras not embedded in the casino ceiling had been disclosed. too had the use of cameras to provide a side view of chips on the table. The use of sensors of various sorts to detect game play had been disclosed by numerous patents. See U.S. Patents Nos. 4,814,589; 5,283,422; 5,586,936; 5,651,548; 5,831,527; 5,735,742. Activating cameras based upon a sensor had been disclosed. U.S. Patent Nos. 5,651,548, 5,831,527, 5,735,742. Perhaps the only element of the invention disclosed in the '871 patent that does not appear in the prior art cited by the parties is the "frame," which in any case is only relevant in the patent as a means of locating the camera, and which was also a limitation that Plaintiffs' expert explicitly acknowledged was obvious. (Strisower Depo. 67-68, Ex. 41 to Smith Decl. (#582).)

In sum, this is exactly the type of combination patent that $\underline{\text{KSR}}$ discusses. 17

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 $^{^{16}}$ Plaintiffs object that Defendants have cited U.S. Patent Nos. 6,154,131 and 6,165,069, but that those patents are not prior art to the '871 patent. It is not necessary to consider these patents to resolve this motion.

¹⁷When Strisower was asked at his deposition if the combination of elements in the independent claims yielded "any unpredictable results" to one skilled in the art at the time, Strisower answered "I can't think of what the unpredictable results would be." (Strisower Depo. 127-130, Ex. D to Roberts Decl. (#873).)

2. Difference Between Prior Art and the Claims at Issue

It is clear that the '871 patent is in substantial part an attempt to patent the position of cameras with respect to the gaming table. Virtually all of the claims address the positioning of the video camera, and Plaintiffs also place particular emphasis on camera positioning in distinguishing the prior art. The additional disclosure in the '871 patent is the usage of a sensor to turn cameras on and off, but there is little difference, and certainly no non-obvious difference, between the sensor disclosure in the '871 patent and the prior art.

Defendants' observation that the re-positioning of the video cameras in the '871 patent is a thin reed to rely upon for non-obviousness is clearly correct. First, the '647 patent already made clear that the cameras need not be located in the ceiling. Second, to a large extent, the notion that one moves a camera until one gets the desired view without obstructions is simply common sense. Hidden cameras were not new, nor were modifications to the chip tray. Third, Plaintiffs' expert, Dr. Castleman, is notably in agreement with Defendants' conclusion that the positioning of the cameras is obvious. He frankly stated:

as far as what the MP21 System does and how it does it and as far as what the claims of the '871 patents describe, I think that the location of the cameras is, in both cases, pretty

¹⁸For example, the '871 patent claims numerous angles for the line of sight of the cameras. Despite an assault of "asked and answered" objections from Plaintiffs' counsel, Strisower testified that the '647 patent simply did not need to disclose the angle it used to obtain an image of stacked chips because this could be obtained through "trial and error." (Stisower Depo. 100, Ex. D to Roberts Decl. (#873) and Ex. 3 to Hedman Decl. (#862).)

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much where they need to be. It's sort of an obvious proper place to put the cameras for this particular system.

(Castleman Depo. 211, Ex. 15 to Smith Decl. (##582, 604).) The point was also made by Attila Grauzer, an employee of Shuffle Master, who stated that the location of the cameras "in front of the chip tray . . . was an obvious choice" in connection with Shuffle Master's similar system. (Grauzer Depo. 77:6-7, Ex. 11 to Smith Decl. (#582).) Plaintiffs make no substantive argument that the camera position would not have been "obvious to try." In sum, the problem of avoiding obstacles to the cameras and obtaining a clear picture, insofar as it needed to be addressed by the '647 patent, suggested its own solution.

3. Secondary Considerations

In light of the strong showing of obviousness, the burden is on Plaintiffs to produce evidence of secondary considerations that would rebut the <u>prima facie</u> case. <u>In re Huang</u>, 100 F.3d at 139. Plaintiffs' rely on the length of time it took to develop Trak-21 and on their allegations that Soltys and Huizinga copied Schubert's invention.

Relying on Strisower's report, Plaintiffs place a great deal of emphasis on the length of time that the developers of the Trak-21 system took in repositioning the cameras in that system. The role of the length of the design inquiry was addressed in Calmar, Inc. v. Cook Chemical Company, a companion case reported in Graham v. John Deere Company. 383 U.S. at 26-37. Calmar also dealt with the problem of a combination of prior art, and specifically, it dealt with "a finger-operated sprayer with a 'hold-down' cap of the

type commonly seen on grocers' shelves inserted in bottles of insecticides and other liquids prior to shipment." 383 U.S. at 687. The patentee "stress[ed] the long-felt need in the industry for such a device; the inability of others to produce it; and its commercial success," 383 U.S. at 29, all of which the patentee argued supported non-obviousness. The record supported that there was, in fact, both long-felt need and commercial success and the Court of Appeals "found validity in the 'novel 'marriage' of the sprayer with the insecticide container' which took years in discovery and in 'the immediate commercial success' which it enjoyed." Id. at 30.

The Supreme Court reversed. Addressing contemporary commentary regarding the role of courts in patent cases, the Court essentially concluded that courts should seriously weigh secondary factors but not take their eyes off the ball:

These legal inferences or subtests [i.e., long-felt need and commercial success] do focus attention on economic and motivational rather than technical issues and are, therefore, more susceptible of judicial treatment than are the highly technical facts often present in patent litigation. Such inquiries may lend a helping hand to the judiciary which, as Mr. Justice Frankfurter observed, is most ill-fitted to discharge the technological duties cast upon it by patent legislation. They may also serve to guard against slipping into use of hindsight, and to resist the temptation to read into the prior art the teachings of the invention in issue. [¶] However, these factors do not, in the circumstances of this case, tip the scales of patentability. The Scoggin invention, as limited by the Patent Office and accepted by Scoggin, rests upon exceedingly small and quite non-technical mechanical differences in a device which was old in the art.

<u>Graham</u>, 383 U.S. at 35-36 (citations and quotations omitted; modification supplied); <u>see also KSR</u>, 127 S.Ct. at 1738, 1745-46 (affirming summary judgment despite the presence of commercial success); <u>Leapfroq</u>, 485 F.3d at 1162 ("substantial evidence of

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commercial success, praise, and long-felt need" was inadequate "given the strength of the prima facie obviousness showing"); Sandt Technology, Ltd. v. Resco Metal and Plastics Corp., 264 F.3d 1344, 1355 (Fed. Cir. 2001) (affirming grant of summary judgment where secondary consideration of commercial success was insufficient in light of Graham analysis).

As in <u>Calmar</u>, the positioning of the cameras presents a largely non-technical, and ultimately, small difference between the patent and the prior art. If the proximity to the table was not explicitly disclosed by the '647 patent, this was not a technical leap. Similarly, it is clear that one with skill in the art would use "trial and error," as Strisower puts it, until he or she found the positioning of the cameras on the table that worked.

Plaintiffs also argue that evidence that the inventors of the Mindplay patents copied Schubert's innovation is indicative of non-obviousness. There are genuine issues of material fact regarding whether this took place. However, the purpose of considering copying as a secondary consideration in the context of obviousness is not to read the law of trade secrets into patent law. Rather, "copying" can in some circumstances be more or less analogous to commercial success. It can indicate acclamation and the adoption of a solution to a problem by an industry. The problem with Plaintiffs' theory is that the alleged copying is not probative of non-obviousness in this case when the prior art is considered in light of the Graham factors. Graham, 383 U.S. at 35-36; see In re GPAC, 57 F.3d 1573, 1580 (Fed. Cir. 1995) ("[M] ore than the mere fact of copying by an accused infringer is needed to make that action significant to a determination of the obviousness issue.");

see also Ecolochem, Inc. v. Southern California Edison Co., 227 F.3d 1361, 1380 (Fed. Cir. 2000).

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4. Summary

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The Supreme Court's broadest teaching in KSR is directly on point and must be emphasized:

We build and create by bringing to the tangible and palpable reality around us new works based on instinct, simple logic, ordinary inferences, extraordinary ideas, and sometimes even These advances, once part of our shared knowledge, define a new threshold from which innovation starts once more. And as progress beginning from higher levels of achievement is expected in the normal course, the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. See U.S. Const., Art. I, § 8, cl. 8.

KSR, 127 S.Ct. at 1746 (emphasis supplied). In light of the '187 patent and the disclosure in the '647 patent disclosed that stacks of chips could be analyzed from the side, the remaining work could not reasonably be considered anything beyond "ordinary innovation," and to find otherwise would be to render the person with ordinary skill in the art an automaton. Accordingly, summary judgment must be granted to Defendants on the issue of the invalidity of the '871 patent. The parties' cross-motions dealing with the failure to Join William Florschuetz as a co-inventor (##575, 672) will be denied as moot.

V. Plaintiff Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of U.S. Patent Nos. 6,517,436 and 6,520,857 (#577) and Defendants' Motion for Summary Judgment of Plaintiffs' Counts I-III of Counterclaims for Interference (#572)

In their counterclaims to Defendants' counterclaims for infringement, Plaintiffs allege that three patents owned by

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MindPlay - U.S. Patent Nos. 6,517,436 ('436), 6,520,857 ('857), 6,530,836 ('836) - interfere with the '871 patent. (P.s' Fourth Amended Reply to D.s' Counterclaims to First Amended Complaint for Patent Infringement and Affirmative Defenses and Counterclaims in Reply Thereto (#556).) Plaintiffs' motion for summary judgment asserts that summary judgment should be granted with respect to the '436 and '857 patent. Specifically, Plaintiffs seek summary judgment that claims 1, 2, 5, 8, 9 and 15 of the '436 patent, and claims 1 through 3, 11, and 14 of the '857 patent interfere with claims 5, 6, 39, and 67 of the '871 patent, and that the '871 patent has the earlier priority date.

Defendants' motion for summary judgment, on the other hand, seeks summary judgment that there is no interference with any of the three MindPlay patents. Defendants' motion flows entirely from evidentiary objections, and the assertion that there is "no evidence" to support Plaintiffs' claims. Notwithstanding Defendants' proper evidentiary objection with respect to Carmichael and the conclusory nature of Strisower's expert opinion on the issue of interference, it is simply cavalier to assert that there is "no evidence" of interference. The patents themselves are constitute the most probative evidence regarding interference in this case. See Avia Group Intern., Inc. v. L.A. Gear California, Inc., 853 F.2d 1557, 1562 (Fed. Cir. 1988) ("a judge may decide the legal issue of validity unaided by expert opinion"). In any case, because the '871 patent is invalid, the motions for summary judgment based on the interference claims are moot.

Although the interference claims are moot, Plaintiffs' motion also seeks summary judgment that the '871 patent and the third

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generation of the Trak-21 system, developed as a joint venture between Digital Biometrix and Lakes Gaming, anticipates the same two MindPlay patents ('436 and '857). In their supplemental briefing related to the effects of <u>KSR</u> on this case, Plaintiffs more broadly argue that the '436 and '857 patents are obvious.

The '436 and '857 patents stem, as do several other related patents, from the same provisional application. Generally, the disclosure in the specification of these patents is of a comprehensive system for monitoring playing and wagering. The components disclosed in the specification are, broadly, a card deck reader, a chip tray reader, a table monitoring system, an automatic drop box that verifies the amount and authenticity of deposits, and an automated computer system that uses the other components to "monitor the habits of players and the performance of employees." '436 and '857 Patents 2:16-61. The claims in the '436 and '857 system pertain only to the table monitoring system. The embodiment of this system disclosed in the specification utilizes nine CMOS sensors, like the sensors in the MP21 system, which are positioned in the chip tray to monitor both the chips and cards at play on the table. Id. at 9:30-10:13.

Plaintiffs' invalidity argument relies in part on Plaintiffs' contention that the Trak-21 system and the '871 patent are prior art to the '436 and '857 patents. The applications were copending, but the '871 patent application was the first filed. The parties dispute whether Plaintiffs have met their burden of showing that '871 patent is prior art under section 102(g)(2) to the '436 and '857 patents. Similarly, the parties dispute whether Plaintiffs have met their burden of showing the Trak-21 system is

prior art to the '871 system.

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As summarized by Professor Chisum:

The junior party bears the burden of going forward with evidence as to actual reduction to practice prior to the senior party's filing date or conception prior to the senior party's filing date plus continuous and reasonable diligence during the critical period. If the senior party desires to show a date of conception or reduction to practice prior to his filing date, he bears the burden of going forward with evidence. . . . The ultimate burden of persuasion remains on the junior party or parties in an interference as to all issues of fact relevant to priority of conception and reduction to practice.

3A-10 Donald Chisum, Chisum on Patents § 10.09 (2006). The '871 patent application was the first filed, and the Court could easily find on this record that Defendants have failed to meet their burden of producing evidence of a priority date earlier than the filing date for the '436 and '857 patents. However, Plaintiffs have accepted, at least for the purposes of summary judgment, Defendants' interrogatory response stating that the conception of the '436 and '857 patents was from "August 1998 to January 1999." (Ex. F to Bregenzer Decl. (#583).)

In arguing that the conception of the '871 patent precedes
August 1998, Plaintiffs first rely upon this Court's Order (#534)
of July 17, 2006, which granted partial summary judgment "that
Robert Mouchou received Schubert's putative trade secrets during
his negotiations with Schubert." The key events with respect to
Mouchou and Schubert's interactions were a demonstration that
occurred in August 1997 and a joint venture proposal that Schubert
faxed to Mouchou in July 1997. Trade secrets were revealed to
Mouchou, but there are genuine issues of material fact regarding
what occurred at this meeting. It was not the intention of the
Court to make any factual finding regarding "Appendix A" to

Plaintiffs' motion (P.s' Mot. for Partial Summ. J. (#319)), which was, of course, not a document that was exchanged between Schubert and Mouchou. The Court now clarifies that purported trade secrets were disclosed, but that the Court did not find that the substance of the '871 patent had been disclosed in its entirety to Mouchou. As Defendants note, Plaintiffs had affirmatively argued that this could not have been the case, 19 and Mouchou stated that the system that Schubert had demonstrated was "vapor ware." The Court's Order (#534) of July 17, 2006 does not establish the date of conception of the '871 patent.

Turning then to the evidence that was before the PTO and is now before the Court, Schubert's affidavit appeared to claim a conception and priority date as early as 1995. (Ex. H to Bregenzer Decl. (#583).) In light of the contents of Schubert's earliest emails to Florschuetz in 1995, this claim to the PTO was nothing short of far-fetched. Further, the redactions of the dates from the emails between Schubert and Florschuetz facially suggests an attempt to deceive the PTO regarding the actual timeline of conception and reduction to practice. Nevertheless, the unredacted correspondence makes it quite clear that Schubert had conceived of placing the cameras in the front of a modified chip tray by February 3, 1997. (Ex. Q to Bregenzer Decl. (#583).) Defendants

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¹⁹Plaintiffs argued at some length in opposing Defendants' "on sale bar" summary judgment motion both that the prototype that had been demonstrated "lacked many of the limitations that characterizes the claimed invention," and further, that "many of the concepts claimed in the '871 patent were not even conceived until after the July 1997 demonstration." (P.s' Opp. to Def.s' Mot. for Summ. J. of Invalidity of U.S. Patent No. 6,313,871 (#318) 8) (emphasis supplied).

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also assert that there are issues of fact surrounding Schubert's diligence. The "basic inquiry" with respect to diligence is "whether there was reasonably continuing activity to reduce the invention to practice." Brown v. Barbacid, 436 F.3d 1376, 1380 (Fed. Cir. 2006). In light of the email correspondence submitted to the PTO and Schubert's subsequent preparation of his patent application, both Schubert and Florschuetz's continuity of work on the invention and the relevant landmarks in that work have been established. See 3A-10 Chisum on Patents § 10.07 & n.4 ("diligence is a stringent standard" and "[e] vidence which is of a general nature to the effect that work was continuous and which has little specificity as to dates and facts does not constitute the kind of evidence required to establish diligence in the critical period.") (quoting Hunter v. Beissbarth, 230 USPQ 365, 368 (Bd. Pat. App. & Int'f 1986)). The Court thus finds that Schubert's diligence is beyond reasonable dispute.

We will briefly note that the issue of whether Trak-21 can be considered prior art to the '436 and '857 patents involves genuine issues of material fact. Anderson's declaration states that Anderson worked for Digital Biometrics, that he hired Bryant Scheffe as a consultant in December 1997 or January 1998, and that Scheffe had the idea of placing cameras in the chip tray within a few months. (Anderson PTO Decl. ¶ 15, Ex. D to Hedman Decl. (#584).) The corroborating slides from two presentations, which are attached to Anderson's PTO declaration as "tab 13," "tab 14," and "tab 15", show that the invention was certainly conceived by July 7, 1998. Presentation slides, dated August 26, 1998, also indicate that a "rapid prototype system" was complete "minus the

chip tray cover" on August 25, 1998. Yet the system was not made public until April 29, 1999. Thus, while there may not be genuine issues of fact with respect to conception and reduction to practice, there are issues of fact with respect to whether the invention was suppressed or concealed. See 35 U.S.C. 102(g)(2); Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 1446 (Fed. Cir. 1984).

Ultimately, however, the issue of the priority dates of the '871 patent and the Trak-21 system are not material, because the '871 and the '436 and '857 patents cover virtually the same ground as the '871 patent. As Plaintiffs point out, Defendants offer no expert evidence to support the validity of their patents. They challenge the status of the '871 patent and the Trak-21 system as prior art, but decline to state any other substantive reasons why the '436 and '857 patents are not obvious. Not without reason, Defendants instead argue that Plaintiffs' arguments in support of the obviousness of the '436 and '857 patents exposes the weakness of Plaintiffs' opposition to Defendants' motion for summary judgment that the '871 patent is obvious. The observation is well taken.²⁰ However, these observations do not address the issue of the obviousness of the '436 and '857 patents.

Plaintiffs' Appendices C and D to their motion (#577) set out with particularity why claims 1, 2, 5, 8, 9 and 15 of the '436

²⁰Plaintiffs cite patents as prior art that they contend render the '436 and '857 patent obvious, even as they resist having these same patents cited as prior art for the '871 patent, and they further argue that moving the camera to avoid obstructions was obvious. (P.s' Supp. Points and Authorities Re Obviousness and the Impact of the Supreme Court's KSR Decision on the Pending Summ. J. Mot.s (#859) 8.)

patent, and claims 1 through 3, 11, and 14 of the '857 patent are obvious in light of the '871 patent. These claims are also obvious in light of the Fishbine, French, Storch, Uhland, and to some extent Greenwood patents, and for substantially the same reasons that the '871 patent is obvious. Summary judgment will be granted to Plaintiffs with respect to the invalidity of the asserted claims.

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IV. Defendants' Motion for Summary Judgment on Shuffle Master's Claim for Correction of Inventorship in Counts III through IX of the First Amended Complaint (#578)

In counts III through IX of the First Amended Complaint, Plaintiffs assert that Oliver Schubert is a true but unnamed inventor of seven patents owned by MindPlay: U.S. Patents 6,517,436; 6,520,857; 6,527,271; 6,530,836; 6,712,696; 6,579,180; 6,579,181. Defendants seek summary judgment on these counts, arquing (1) that there is insufficient evidence that Richard Soltys and Rick Huizinga received any of Schuberts' ideas, and (2) that Schubert's alleged contribution is prior art and prior art cannot be a basis for inventorship. Soltys and Huizinga are the named inventors on these patents, and the patents are assigned to MindPlay. Schubert is a former employee of Shuffle Master and the named inventor of the '871 patent. It is undisputed that there was never any direct communication between Schubert and the named inventors, Soltys and Huizinga. However, tracking Plaintiffs' earlier trade secrets theory, Plaintiffs assert that Soltys received Schubert's ideas from Robert Mouchou, an executive employee of the Eldorado casino, and incorporated these ideas into the MindPlay patents.

Plaintiffs theory is as follows: (1) Mouchou approached Schubert about the possibility of a joint venture to produce a table tracking system in October 1996 (which appears to be undisputed); (2) Mouchou and his boss, Gene Carano, travelled to Las Vegas on July 23, 1997 to observe a demonstration of Schubert's prototype (which appears to be undisputed); (3) through this demonstration, which was confidential and made in furtherance of the proposed joint venture, Mouchou obtained Schubert's confidential ideas for future improvements regarding the development of a table monitoring system, including the idea of putting cameras inside the chip tray; and (4) Mouchou began to work with MindPlay on the company's table system and conveyed Schubert's confidential ideas to Soltys.

The Court finds that there are genuine issues of material fact regarding whether any of Schubert's ideas found their way to Soltys. The Court, however, agrees with Defendants that Schubert's alleged contribution could not have been enough to render him a coinventor of the MindPlay patents. First, the '871 patent is obvious. Second, the Federal Circuit has held that "[o]ne who simply provides the inventor with well-known principles or explains the state of the art without ever having 'a firm and definite idea' of the claimed combination as a whole does not qualify as a joint inventor." Ethicon, Inc. v. United States Surgical Corp., 135 F.3d 1456, 1460 (Fed Cir. 1998); see also Pannu v. IOLAB Corp., 155 F.3d 1344, 1351 (Fed. Cir. 1998).

Plaintiffs seek to distinguish Ethicon as inapplicable in situations where, as is approximately alleged here, an inventor keeps information secret and then shares it with another inventor.

To the extent that the '871 patent is prior art to the MindPlay patents, the issue of misappropriation is simply a distraction because the Court must presume that each of the patents was granted for innovations beyond what the '871 patent already disclosed. In order to prevail with their correction of inventorship argument, Plaintiffs would have to show that Schubert contributed something beyond what the '871 patent already disclosed, and this Plaintiffs have not even attempted. Conversely, as Defendants argue, the patent examiner must be presumed to have allowed the patent in spite of the '871 patent, not because of it. Accordingly, if Schubert prevailed, it would only show that some or all of the MindPlay patent claims are invalid in light of the '871 patent, not that inventorship should be corrected.

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V. Conclusion

For the reasons set forth above, **IT IS HEREBY ORDERED** that:

- 1. The Court's rulings on the evidentiary issues raised by the parties are as set forth above.
- Plaintiffs' Motion to Strike [886] Errata (#891) and Plaintiffs' Motion for Leave to File Responses (#885) are DENIED. Defendants' Motion (#824) to Strike the Supplemental Expert Report of James T. Carmichael and the Portions of the Supplemental Expert Report of John Strisower Addressing Plaintiffs' Interference Claim for Violation of the Court's June 14, 2007 Order is DENIED as to Strisower but GRANTED as to Carmichael.
- 3. The Court's claim construction Order (#322) is **AMENDED** as

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- follows: The terms "chip edges" and "edges of each chip and edges of each individual chip" in the '647 patent shall both be construed as "the transition between a chip and something that is not that chip."
- 4. Defendants' Motion for Summary Judgment of Non-Infringement and Invalidity 5,781,647 (#580, #742) is <u>GRANTED</u> with respect to non-infringement and <u>DENIED</u> with respect to invalidity.
- 5. Defendants' Motion for Summary Judgment of Non-Infringement and Invalidity of U.S. Patent No. 6,313,871 (#566, #743) is GRANTED on the issue of invalidity.
- Opposition to Defendants' [Seventh] Motion for Summary Judgment of Invalidity of U.S. Patent No. 6,313,871 Due to Failure to Join Co-Inventor William Florschuetz (#575) and Plaintiffs' Cross Motion for Summary Judgment (set forth in Plaintiffs' Opposition to Defendants' [Seventh] Motion for Summary Judgment of Invalidity of U.S. Patent No. 6,313,871 Due to Failure to Joint Co-Inventor William Florschuetz) (#672) are both **DENIED** as moot.
- 7. Defendants' Motion for Summary Judgment on Plaintiffs'
 Counts I-III of Counterclaims for Interference (#572) is

 DENIED as both meritless and moot.
- 8. Plaintiff Shuffle Master's Motion for Summary Judgment of Invalidity of the Asserted Claims of U.S. Patent Nos. 6,517,436 and 6,520,857 (#577) is GRANTED; claims 1, 2, 5, 8, 9 and 15 of the '436 patent, and claims 1 through 3, 11, and 14 of the '857 patent are obvious.

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9. Defendants' Motion for Summary Judgment on Shuffle

Master's Claim for Correction of Inventorship in Counts

III through IX of the First Amended Complaint (#578) is

GRANTED.

DATED: March 21 , 2008.

APPENDIX A

No horizontal chip edges

No vertical chip edges

Two aligned chips

(Darrell Decl. (#569) \P 80) (arrows in original).



(Darrell Decl. (#569) \P 81) (representing three stacked chips).



(Darrell Decl. (#569) \P 82) (omitting both horizontal and vertical edges).

Appendix B

FIG. 2 PV 1,1-

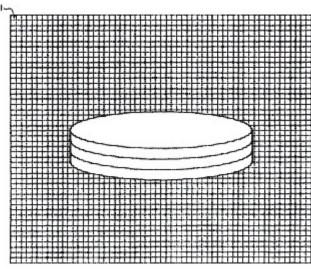


Figure 2, U.S. Patent No. 5,781,647